

Phoenix Manufacturing Company
SW corner of Forest and Wisconsin Streets
Eau Claire
Eau Claire County
Wisconsin

HAER No. WI-10

HAER
WIS,
18 - ECLA,
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
Department of the Interior
P. O. Box 252387
Denver, Colorado 80225

HISTORIC AMERICAN ENGINEERING RECORD

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18-ECLA,
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Phoenix Manufacturing Company

HAER No. WI-10

Location: Southwest corner of Forest and Wisconsin Streets
Eau Claire, Eau Claire County, Wisconsin

UTM: Zone 15
Easting: 618290
Northing: 4963310
Quad: Eau Claire West

Date of Construction: Foundry - 1875
Original Machine Shop - 1875
Machine Shop - 1907
Boiler Room - 1907
Warehouse - 1952

Present Owner: City of Eau Claire
Post Office Box 5148
Eau Claire, Wisconsin 54702-5148

Present Use: The buildings are 90 percent vacant and 10 percent
leased for cold storage.

Significance: The Phoenix Manufacturing Company is an
architecturally significant property, providing the
city's most intact example of industrial
architecture. The two stone structures, initially
used as the firm's foundry and machine shop, represent
a method of construction and illustrate a type of
structure used by manufacturing concerns in the
nineteenth century.

The massive brick edifice attached to these buildings
is a recognizable industrial structure characterized
by a monitor roof and large segmental arch openings,
both features providing light to the interior work
area.

Report Assembled by: James P. Schuh, City of Eau Claire, Department of
Planning and Development, for the city of Eau Claire
November 1984

Transmitted by: Jean Yearby, HAER, 1985

The Phoenix Manufacturing Company, one of the city's oldest manufacturing firms, is a historically significant property in Eau Claire property in Eau Claire, representing the sawmill machinery and logging equipment industry that developed in conjunction with the city's vast lumber milling activities. The Phoenix log hauler, as well as the company's line of traditional sawmill machinery brought the Phoenix name into every lumber producing state and several foreign countries.

Historical Background

The firm of Graham and Tolles, the forerunner of the Phoenix Manufacturing Company was founded in 1861 by Hiram P. Graham, a millwright, and his brother-in-law, Robert Tolles, a machinist. The company included a planing mill, foundry, and machine shop and specialized in building and repairing sawmill machinery. Following a fire in 1875, the business that had originally occupied land on the north bank of the Eau Claire River, west of Dewey Street, moved to the present site of Forest and Wisconsin streets. In the same year, the firm was incorporated under the name of the Phoenix Manufacturing Company with a capital stock of \$50,000.¹

In the next decades, the Phoenix Manufacturing Company produced a number of new products for the lumber milling industry. In 1887, a new band-type mill known as the Esplin mill was placed on the market followed by the Emerson and the Phoenix bandmills.¹ The firm also furnished building parts such as arches, plates, and columns. Many structures in the city feature slim support columns marked with the Phoenix name. In 1892, a separate division, the Phoenix Furniture Company, was organized and located in a building on the city's west side.²

The company's greatest contribution came in the early twentieth century (1903) when, under the patent rights of Orlando Lombard, it produced a steam log hauler. The revolutionary machine was perfected by Charles Tolles, the son of one of the company's founders, and first used by Eau Claire's Northwestern Lumber Company. One report stated:

"Where previously the average load of logs to be pulled by a team of horses was one sled and a load of between 5,000 and 10,000 board feet, now 125,000 board feet and up to 25 sleds were being pulled by one hauler..."³

The company ultimately produced over 100 of the machines, some of which were sent to Alaska, Finland, and Canada.

Following the development of the log hauler, the company expanded physically. A large brick machine shop was erected in 1907 and the stone buildings which had contained the foundry and first machine shop were converted to warehouses. At its height of operation, the Phoenix complex consisted of twenty-one frame, brick and stone buildings covering the five acre site. A railroad spur with a side track that entered the machine shop was part of the property.⁴

Although the future of the steam log hauler seemed bright, the combination of a depleted timber supply and the competition from the more efficient Holt gasoline powered hauler ended its usefulness. In response, the company moved to the production of a gas-powered vehicle for farming and construction use. The Phoenix centipede truck went into production in 1905.³

Later in the twentieth century, the firm experienced a number of financial setbacks arising from disputes over patent rights. The problems became so great that in 1925 the Phoenix Manufacturing Company was forced into bankruptcy and was subsequently purchased by the W. H. Hobbs Supply Company. Reopening under the name of W. H. Hobbs Supply - Phoenix Division, the new company supplied materials for the construction industry, including steel beams, reinforcing wire, sheet metal, and ornamental steel.¹

In 1951, Louis L. Phillips assumed control of the Phoenix Division, and an independent corporation, the Phoenix Steel Corporation, was formed. This company used the property until 1976 when it was purchased by the Landy Packing Company for warehouse use. In 1980, Paul Bearson bought the site and leased out portions of the buildings to various companies, primarily for warehouse space, but also for small manufacturing.⁵

Currently, the city of Eau Claire owns the property. Purchased in 1981, the buildings are being used by a number of business concerns whose leases expire prior to 1985. After an extensive analysis, the city of Eau Claire's Department of Planning and Development is proposing to demolish the complex with the intention of redeveloping the site according to a site plan which emphasizes open space - recreational use of the property.⁶

Building Description

The following descriptions reflect the present condition of the buildings located on the Phoenix Manufacturing Company site.

The Phoenix Manufacturing Company is situated on a five acre site located at the southwest corner of E. Madison Street and Forest Street in the northern portion of Eau Claire's central business area. The property is bounded on the west by the Chippewa River and on the south by land owned by the Chicago, Milwaukee and St. Paul Railroad.

Two of the buildings comprising the property are of stone construction, the various-sized blocks laid in courses with heavily mortared joints. These side-by-side structures are oriented east-west and form the southern section of the complex. The most southern of the two - the nearly square building which formerly housed the company's foundry facilities - is covered by a broad gable roof. Several rectangular openings pierce the walls of the building, but nearly all of these have been covered by either concrete blocks or wood. The remaining intact window is on the south side and it is filled with a multi-paned light. On the east facade, six windows and large garage-like entrance are evident. The windows are marked by stone lintels and sills and

and the large entry by a segmental arch formed by bricks (the arch appears to be a later addition). A round window, now boarded over is within the gable. This feature is repeated on the west wall of the building and on both gable ends of the neighboring structure. The openings on the south and west facades are emphasized by wooden lintels and sills.⁷

Attached on the north (the buildings were probably joined when the brick structure was built in 1907) is a narrow rectangular, similarly-designed structure, originally containing the machine shop. (The 1897 Sanborn Perris map shows this building as also extending north where the brick structure now stands.)⁸ The window openings (once again, all have been blocked in) are highlighted by brick segmental arches and, in most cases, by stone sills. Large door openings have been added to the building, altering the fenestration pattern.⁷

Connected to the north wall of the first machine shop is the immense reddish-brick structure which replaced it. Measuring 200 feet by 93 feet, the building is identified by its monitor roof. The slanting sides of the upper portion of the roof are glazed to allow light to enter the center of the structure. The long east wall of the building is filled with two rows of paned segmental arched windows. All of the building's windows have been boarded over with the exception of the slanting sided windows of the upper portion of the roof facing east. The broad openings are accented by narrow stone sills and on the second story by a pattern of brick corbelling. On the north wall, the same window openings are visible, as well as a large entrance which originally allowed railroad cars to enter the building. A brick boiler room, also constructed in 1907, is attached at the southwest corner of the building. At the west side of the machine shop is a concrete block addition, erected in the mid-twentieth century, which is not considered significant to the complex. The building is steel framed and on the interior divided into galleries, 24 feet wide, supported by pillars.⁷

In a December 1981 report, prepared by the city of Eau Claire who now owns the building, the stone structures were listed in poor condition; the 1907 brick structure in average condition, with the remodeling or repair work done up to this point confined to the replacement of windows, roof, and doors.⁶

Industrial Process

Steel fabrication is an industrial process integrating engineering and manufacture. The process utilizes standard steel shapes, including I-beams, angles, channels and panels, to fabricate individually designed components which are produced to exacting standards. The fabrication process requires a large capital investment in machinery, buildings and traveling equipment (cranes).⁸

Once the firm has been awarded a contract, the general architectural or engineering designs for the project are sent to the fabricator's engineering department where detailed assembly drawings are prepared. Fabrication

drawings show in detail each piece of steel required for the project, along with the attachments necessary to tie each piece to the next (clips, angles, brackets, etc.). From these detailed working drawings, blueprints are prepared for use in the fabrication shops.⁹

The fabrication shops are by necessity open, undivided structures owing to the varying size and requirements of the projects which pass through them. Heavy cranes secured to tracks at the building's eave lines are the one constant in the design of the shops. These cranes are necessary to transport the steel components through the stages of fabrication.⁹

Based on the working drawings prepared by the Engineering Department, the Shop Superintendent prepares a "cutting list" which itemizes the shapes to be sheared or sawn. This list is then used to mark the location of holes, copes, etc., on standard steel shapes which have been cut to the appropriate size. Steel pieces are then transported to blocking machines or burning skids where flanges or webs are block out or burned off. Clip angles, gusset plates or other connecting pieces are next fitted and bolted to the steel. The assembled steel is painted to the specifications of the client in the final stage of fabrication.⁹

In a modern fabricating plant, such as the Phoenix Steel, Inc., on Melby Street in Eau Claire, steel is worked using a variety of computerized machinery and light air powered hand tools.¹⁰ Technological improvements in crane capacities and machinery used to manipulate steel have dramatically increased the size of components fabricated since the adoption of steel as a standard structural material. The basic fabricating process has, however, remained the same.⁹

At the Phoenix Steel, Inc., complex, standard steel shapes were shipped directly from the steel mills to Phoenix Steel, Inc., via the Chicago & Northwestern Railroad. Major steel suppliers to the Phoenix Steel, Inc., have historically included U. S. Steel, Bethlehem Steel, Inland Steel, North Star Steel, and Northwestern Steel and Wire.¹⁰ Fabrication drawings were prepared in the company's engineering department, which was located in the complex office building. The fabrication process was labor intensive. Shop machinery was belt-driven from line shafts driven by a central engine, and riveting was done by hand from a single rivet forge.⁹

As Phoenix Steel, Inc., expanded over the years, the original shop machinery was gradually replaced with more efficient tools for fabrication. Unfortunately, the majority of the company's first machines were discarded in the process. Surviving in the shop complex, now located on Melby Street, are some old Williams and White mechanical punches. All other equipment has been replaced.¹⁰

The city of Eau Claire purchased the Phoenix Manufacturing Company building complex in 1981 with the following objectives: The elimination of the blighting influence of the property; the redevelopment of the site in such a way as to induce reinvestments and redevelopment in the area; the reuse of the site in a manner which is sensitive to the constraints imposed by the floodplain of the Chippewa River; and, to the extent possible, the integration of the use of the site with the potential redevelopment of the land to the south presently owned by the Chicago, Milwaukee and St. Paul Railway.

The city of Eau Claire was not aware of the property's significance until the complex was determined to be eligible for listing in the National Register of Historic Places. This finding was made by a preservation consultant who was conducting an intensive historic/architectural survey for the city in 1981-1982 and was listed in the National Register with twenty other individual sites and three historic district, all of which were submitted as a multiple resource nomination.

Documentation of the industrial complex for the Historic American Engineering Record was necessitated by the city's desire to raze the buildings and clear the site for future public use. This course of action was recommended in a December 1981 report prepared by the city of Eau Claire entitled "The Former Phoenix Steel Site: Background, Alternatives and Recommendations."

Chain of Title

Original and subsequent owners of the property which is described as follows:

Blocks 5 and 22 of the Huyssen, Marfield, Galloway and Meredith's Addition to the City of Eau Claire, being lands bounded by the south line of Madison Street to the west line of Forest Street; the south line of Galloway Street the right-of-way of the Milwaukee-St. Paul Railway Company and the Chippewa River. Subject to easement of record. And, all its right, title and interest to Lots 6 and 7, Block 6, and the vacated portion of Forest Street south of Wisconsin Street and lands south of Galloway Street.

The abstract of title is in the office of the City Clerk, Eau Claire City Hall, Eau Claire, Wisconsin.

- 1853 Transcript of records of the United States Land Office shows that Government Lot 1, Sec. 17, T 27 N, R 9 W, was entered by Samuel Marfield on July 20, 1953.
- 1855 The Act of Congress approved September 28, 1850, entitled "An Act Granting Boundary Land to Certain Officers and Soldiers who have been Engaged in the Military Service of the United States..."
- Grants: Government Lot 1, Sec. 17, T 27 N, R 9 W, to Samuel Marfield, January 9, 1855 (Vol. 13 of Deeds, Pg. 214).
- 1851 Transcript of the record of the United States Land Office show that Government Lot 7, Sec. 20, T 27 N, R 9 W, was entered by George W. Randall on August 19, 1851 (Vol. 1 of United States Entries, Pg. 262).
- 1852 United States Government conveys to George W. Randall Government Lot 7, Sec. 20, T 27 N, R 9 W (Vol. 79 of Deeds, Pg. 237, Document #93478).
- 1857 Surveyed and platted as Chapman and Thorp's Third Addition to Eau Claire (Surveyed: October 15, 1857, and platted October 19, 1857) (Vol. 1 of Plats, Pg. 7).
- 1858 Surveyed and platted as Huyssen, Marfield, Galloway and Meredith's Addition to the City of Eau Claire (Surveyed: December 7, 1857, and platted March 1, 1858) (Vol. 1 of Plats, Pg. 9).
- 1875 Warranty Deed. October 21, 1875, from Hiram P. Graham and Mary Jane Graham, his wife; Samuel White and Clara A. White, his wife; Robert Tolles and Mary R. Tolles, his wife; to the Phoenix Manufacturing Company, a corporation (Vol. 19 of Deeds, Pg. 169).

- 1875 Articles of Association. October 12, 1875, Hiram P. Graham, Samuel White, Robert Tolles, Conway B. Daniels, and William Dean formed a corporation to be known as the Phoenix Manufacturing Company (Vol. 3 of Articles of Incorporation, Pg. 83, Document #57129).
- 1876 Guardian's Deed. December 8, 1876, from Lewis B. Gregory, guardian of the person and estate of Charles C. Spafford, an insane person, to Phoenix Manufacturing Company (Vol. 21 of Deeds, Pg. 272, Document #25448).
- 1879 Warranty Deed. June 5, 1879, from Eau Claire Lumber Company of Eau Claire to the Phoenix Manufacturing Company (Vol. 26 of Deeds, Pg. 213, Document #30386).
- 1879 Certified Copy of Resolution. September 23, 1879, resolution vacating alley (Vol. 8 of Miscellaneous, Pg. 338, Document #134894).
- 1880 Warranty Deed. July 2, 1880, from Louis E. Strum, an unmarried man, to Phoenix Manufacturing Company (Vol. 25 of Deeds, Pg. 337, Document #32619).
- 1882 Warranty Deed. July 20, 1882, from Letitia Huyssen and Augustus Huyssen, her husband, to the Phoenix Manufacturing Company (Vol. 31 of Deeds, Pg. 257, Document #37805).
- 1882 Warranty Deed. November 10, 1882, from Letitia Huyssen and Augustus Huyssen, her husband, to the Phoenix Manufacturing Company (Vol. 31 of Deeds, Pg. 517, Document #38921).
- 1882 Certified Copy of Vacation. March 15, 1882, vacation of River Street (Vol. 8 of Miscellaneous, Pg. 339, Document #134895).
- 1883 Warranty Deed. June 18, 1883, from Letitia Huyssen and Augustus Huyssen, her husband, to the Phoenix Manufacturing Company (Vol. 34 of Deeds, Pg. 2523, Document #40493).
- 1883 Warranty Deed. October 9, 1883, from Ole Martinson and Anne Martinson, his wife, to Chicago, Milwaukee, and St. Paul Railway Company (Vol. 33 of Deeds, Pg. 592, Document #41281).
- 1883 Warranty Deed. October 9, 1883, from Alex Johnson and Minnie Johnson, his wife; Peter Oleson and Emma Oleson, his wife; Gilbert Oleson and Lena Oleson, his wife; to Chicago, Milwaukee, and St. Paul Railway Company) Vol. 33 of Deeds, Pg. 594, Document #41283).
- 1883 Warranty Deed. October 11, 1883, from August Carlson (widower) to Phoenix Manufacturing Company, a corporation (Vol. 34 of Deeds, Pg. 598, Document #41922).

- 1884 Warranty Deed. July 2, 1884, from Phoenix Manufacturing Company to City of Eau Claire, a municipal corporation (Vol. 38 of Deeds, Pg. 68, Document #43895).
- 1885 Quit Claim Deed. May 29, 1885, from Thomas F. Frawley and L. A. Frawley, his wife, to the Phoenix Manufacturing Company (Vol. 41 of Deeds, Pg. 52, Document #47038).
- 1887 Special Warranty Deed. January 31, 1887, from Chicago, Milwaukee, and St. Paul Railway Company, a corporation, to Phoenix Manufacturing Company, a corporation (Vol. 43 of Deeds, Pg. 533, Document #52582).
- 1887 Quit Claim Deed. January 31, 1887, from Chicago, Milwaukee, and St. Paul Railway Company, a corporation, to Phoenix Manufacturing Company, a corporation (Vol. 43 of Deeds, Pg. 530, Document #52580).
- 1891 Deed. September 16, 1891, from Chicago, Milwaukee, and St. Paul Railway Company, to Phoenix Manufacturing Company (Vol. 52 of Deeds, Pg. 426, Document #632709).
- 1894 Quit Claim Deed. May 22, 1894, from Alfred Cypreansen and Aagot, his wife, to the Phoenix Manufacturing Company, a corporation (Vol. 55 of Deed, Pg. 280, Document #69047).
- 1904 Quit Claim Deed. January 5, 1904, from Elizabeth Kleiner (widow) to the Phoenix Manufacturing Company, a corporation (Vol. 72 of Deeds, Pg. 232, Document #90028).
- 1910 Notice of Lis Pendens. February 1, 1910, request for vacation of Wisconsin Street (Vol. 1 of Lis Pendens 456, File #105872).
- 1910 Certified Copy of Resolution. February 16, 1910, resolution granting vacation of Wisconsin Street (Vol. 4 of Miscellaneous, Pg. 1, Document #106041).
- 1919 Certified Copy of Resolution. October 16, 1919, resolution vacating Galloway Street (Vol. 8 of Miscellaneous, Pg. 340, Document #134896).
- 1921 Trust Deed - \$350,000. February 1, 1921, from Phoenix Manufacturing Company to the Union Trust Company and W. M. Baldwin, as trustee (Vol. 109 of Mortgages, Pg. 26, Document #141300).
- 1923 Certified Copy of Decree of Foreclosure and Sale. August 3, 1923, the Union Trust Company and W. M. Baldwin, as trustee, plaintiffs vs. Phoenix Manufacturing Company, defendants (Vol. 11 of Miscellaneous, Pg. 424, Document #157438).
- 1923 Certified Copy of Bondholder's Protective Agreement. January 17, 1923, Charles B. Stanley and Howard M. Bissell, to the Union Trust Company, an Ohio corporation of Cleveland, Ohio (called Depository).

- 1925 Certified Copy of Order at Foot of the Decree Modifying Original Order. July 13, 1925 (Vol. 11 of Miscellaneous, Pg. 433, Document #157439).
- 1925 Assignment. October 23, 1925, from Charles B. Stanley and Howard N. Bissell, constituting Phoenix Manufacturing Company Bondholders Protective Committee (called Committee to Roswell H. Hobbs Realty Company), a corporation (called Purchaser) (Vol. 11 of Miscellaneous, Pg. 435, Document #157440).
- 1925 Certified Copy of Order. November 13, 1925, in District Court, for the United States for the Western District of Wisconsin, conveyance of deed (Vol. 11 of Miscellaneous, Pg. 437, Document #157441).
- 1925 Deed. November 14, 1925, John B. Fleming, special master to Roswell H. Hobbs Realty Company (Vol. 126 of Deeds, Pg. 10, Document #157357).
- 1925 Quit Claim Deed. December 1, 1925, from the Phoenix Manufacturing Company to Roswell H. Hobbs Realty Company (Vol. 126 of Deeds, Pg. 326, Document #157617).
- 1925 Quit Claim Deed. November 30, 1925, the Union National Trust Company and W. M. Baldwin, trustee to Roswell H. Hobbs Realty (Vol. 126 of Deeds, Pg. 329, Document #3157618).
- 1916 Verified Copy of Articles of Incorporation. March 27, 1916, Roswell H. Hobbs, Jessie M. Hobbs, W. H. Hobbs and Mary A. Hobbs form a corporation to be known as Roswell H. Hobbs Realty Company (Vol. 7 of Articles of Incorporation, Pg. 68, Document #122672).
- 1960 Notice of Lis Pendens. August 24, 1960, public notice for vacating parts of Galloway and Hobart streets (Vol. 4 of Lis Pendens, Pg. 93, File #313412).
- 1960 Certified Copy of Resolution. November 23, 1960, resolution vacating parts of Galloway and Hobart Streets (Vol. 42 of Miscellaneous, Pg. 253, Document #314947).
- 1976 Warranty Deed. July 20, 1976, from Roswell H. Hobbs Realty to Landy & Landy, a partnership, d/b/a Landy Packing Company (Vol. 469 of Records, Pg. 529, Document #450660).
- 1977 Quit Claim Deed. January 7, 1977, from Roswell H. Hobbs Realty Company to Landy & Landy, a partnership, d/b/a Landy Packing Company (Vol. 450 of Records, Pg. 317, Document #437452).

- 1977 Judgement. April 11, 1977, Landy, Inc., Judgement debtor, and Ernest C. Halvorson and Elaine Halvorson, judgement creditor (Vol. 3 of Judgements, Pg. 167, File #78SP11).
- 1977 Small Claim Judgement. May 9, 1977, Landy of Wisconsin, Inc., judgement debtor and WEAU, Inc., d/b/a Muzak, judgement creditor (Vol. 4 of Small Claim Judgement Docket, Pg. 311).
- 1978 Mortgage and Security Agreement - \$4,000,000. December 13, 1978, from Landy & Landy, a partnership, to General Electric Credit Corporation (Vol. 488 of Records, Pg. 625, Document #463275).
- 1978 Financing Statement. December 14, 1978, Landy Packing Company, debtor, and General Electric Credit Corporation (Register of Deeds, File #391431).
- 1978 Quit Claim Deed. December 13, 1978, from Landy Packing Company, a corporation, to Landy & Landy, a partnership (Vol. 489 of Records, Pg. 653, Document #463932).
- 1979 Land Contract. November 12, 1979, from Landy & Landy, a partnership, to Paul M. Bearson (Vol. 521 of Records, Pg. 716, Document #482942).
- 1981 Warranty Deed. August 14, 1981, from Paul Bearson to City of Eau Claire (Vol. 536, Pg. 664, Document #491685).
- 1981 Warranty Deed. August 14, 1981, from Landy & Landy, a partnership, to City of Eau Claire (Vol. 536, Pg. 665, Document #491686).

FOOTNOTES

- 1 History of Eau Claire County, 1914, pp. 476-478.
- 2 Eau Claire Weekly Free Press, June 9, 1982.
- 3 Wold, R., 1976. "Lombard's Ideas Moved to the Midwest with the Phoenix Log Haulers," Live Steam, January.
- 4 Eau Claire Leader, July 12, 1907.
- 5 Abstract of Title, the Phoenix Manufacturing Company
- 6 Eau Claire Department of Planning and Development, 1981. "The Former Phoenix Steel Site: Background, Alternatives and Recommendations."
- 7 "National Register of Historic Places Inventory - Nomination Form." U. S. Department of Interior, National Park Service, November, 1981.
- 8 The original foundry building, the southernmost stone structure on the property, was probably constructed in 1875 when the company moved to the site. The adjacent building, the first machine shop, is not shown in its present form on the Sanborn maps until 1897. The 1889 map and those previous (1883 and 1885) feature a stone structure, but it is a smaller square building. Thus, it seems the shop was erected sometime between 1889 and 1897.
- 9 "Historic American Engineering Record." Midwest Steel and Iron Works Company. HAER No. CO-19, March 1984.
- 10 Interview: Phil Hoilien, Assistant Production Manager, Phoenix Steel, Inc., November 8, 1984